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RAW SEQUENCE LISTING

DATE: 01/28/2002

PATENT APPLICATION: US/10/046,722

/10/046,722 TIME: 14:05:55

Input Set : A:\yanagawa sequence listing.txt
Output Set: N:\CRF3\01282002\J046722.raw

ENTERED SEQUENCE LISTING (1) GENERAL INFORMATION: (i) APPLICANT: Hiroshi YANAGAWA et al. (ii) TITLE OF INVENTION: Molecule Assigning Genotype To 4 Phenotype And Use Thereof 5 6 (iii) NUMBER OF SEQUENCES: 26 (iv) CORRESPONDENCE ADDRESS: 7 8 (A) ADDRESSEE: Wenderoth, Lind & Ponack, L.L.P. 9 (B) STREET: 2033 K Street, N.W., Suite 800 10 (C) CITY: Washington (D) STATE: D.C. 11 RECEIVED

MAR 1 4 2002

ECH CENTER 1600/2900 (E) COUNTRY: USA 12 (F) ZIP: 20006 13 (V) COMPUTER READABLE FORM: 14 15 (A) MEDIUM TYPE: Floppy disk (B) COMPUTER: IBM PC compatible 16 17 (C) OPERATING SYSTEM: PC-DOS/MS-DOS (D) SOFTWARE: PatentIn 18 (vi) CURRENT APPLICATION DATA: 19 (A) APPLICATION NUMBER: US/10/046,722 C--> 20 C--> 21 (B) FILING DATE: 17-Jan-2002 22 (C) CLASSIFICATION: (D) REFERENCE: 2001-1921/LC/01416 23 24 (vii) PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 09/284,627 25 26 (B) FILING DATE: 02-Jun-99 28 (2) INFORMATION FOR SEQ ID NO: 1: 29 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 33 30 31 (B) TYPE: nucleic acid 32 (C) STRANDEDNESS: single 33 (D) TOPOLOGY: linear C-->34(ii) MOLECULE TYPE: other nucleic acid 35 (A) DESCRIPTION: synthetic DNA 36 (ix) FEATURE: 37 (D) OTHER INFORMATION: T7 promoter upstream 38 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1: 33 39 GAGCATAGAT CTCGATCCCG CGAAATTAAT ACG 41 (2) INFORMATION FOR SEQ ID NO: 2: 42 (i) SEQUENCE CHARACTERISTICS: 43 (A) LENGTH: 33 44 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single

45

DATE: 01/28/2002

PATENT APPLICATION: US/10/046,722 TIME: 14:05:55 Input Set : A:\yanagawa sequence listing.txt Output Set: N:\CRF3\01282002\J046722.raw (D) TOPOLOGY: linear 46 (ii) MOLECULE TYPE: other nucleic acid C-->47(A) DESCRIPTION: synthetic DNA 48 49 (ix) FEATURE: (D) OTHER INFORMATION: includes a termination codon 50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2: 51 GCAGCCGGAT CCTTACTACT TGTGGGTTTC AAT 33 54 (2) INFORMATION FOR SEQ ID NO: 3: (i) SEQUENCE CHARACTERISTICS: 55. (A) LENGTH: 33 56 (B) TYPE: nucleic acid 57 (C) STRANDEDNESS: single 58 59 (D) TOPOLOGY: linear (ii) MOLECULE TYPE: other nucleic acid -> 60 (A) DESCRIPTION: synthetic DNA 61 62 (ix) FEATURE: (D) OTHER INFORMATION: includes an initiation codon; 63 complementary to SEQ ID NO: 4 64 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3: 65 33 GGACATGACA TTCATCATGT CTGGCATATG TAT 66 68 (2) INFORMATION FOR SEQ ID NO: 4: (i) SEQUENCE CHARACTERISTICS: 69 (A) LENGTH: 33 70 (B) TYPE: nucleic acid 71 (C) STRANDEDNESS: single 72 (D) TOPOLOGY: linear 73 (ii) MOLECULE TYPE: other nucleic acid C--> 74 (A) DESCRIPTION: synthetic DNA 75 (ix) FEATURE: 76 (D) OTHER INFORMATION: includes an initiation codon; 77 complementary to SEQ ID NO: 3 78 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4: 79 33 ATACATATGC CAGACATGAT GAATGTCATG TCC 80 82 (2) INFORMATION FOR SEQ ID NO: 5: (i) SEQUENCE CHARACTERISTICS: 83 (A) LENGTH: 16 (B) TYPE: nucleic acid 85 (C) STRANDEDNESS: single 86 (D) TOPOLOGY: linear 87 (ii) MOLECULE TYPE: other nucleic acid C--> 88 (A) DESCRIPTION: synthetic DNA 89 (ix) FEATURE: 90 (D) OTHER INFORMATION: has a portion complementary to 91 92 SEQ ID NO: 6 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5: 93 16 GATCTATTTC TTATTC 96 (2) INFORMATION FOR SEQ ID NO: 6: (i) SEQUENCE CHARACTERISTICS: 97 -98 (A) LENGTH: 17

RAW SEQUENCE LISTING

DATE: 01/28/2002

TIME: 14:05:55

Input Set : A:\yanagawa sequence listing.txt Output Set: N:\CRF3\01282002\J046722.raw 99 (B) TYPE: nucleic acid 100 (C) STRANDEDNESS: single (D) TOPOLOGY: linear 101 C--> 102 (ii) MOLECULE TYPE: other nucleic acid 103 (A) DESCRIPTION: synthetic DNA 104 (ix) FEATURE: 105 (D) OTHER INFORMATION: has an initiation codon; 106 complementary to SEQ ID NO: 5 107 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 17 108 GAAGAGAATA AGAAATA 110 (2) INFORMATION FOR SEQ ID NO: 7: 111 (i) SEQUENCE CHARACTERISTICS: 112 (A) LENGTH: 17 113 (B) TYPE: nucleic acid 114 (C) STRANDEDNESS: single 115 (D) TOPOLOGY: linear (ii) MOLECULE TYPE: other nucleic acid C--> 116 117 (A) DESCRIPTION: synthetic DNA (ix) FEATURE: 118 (D) OTHER INFORMATION: has a portion complementary to 119 120 SEQ ID NO: 6 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 121 17 122 TCTTCTATTT CTTATTC (2) INFORMATION FOR SEQ ID NO: 8: 124 125 (i) SEQUENCE CHARACTERISTICS: 126 (A) LENGTH: 30 127 (B) TYPE: nucleic acid 128 (C) STRANDEDNESS: single 129 (D) TOPOLOGY: linear C--> 130 (ii) MOLECULE TYPE: other nucleic acid 131 (A) DESCRIPTION: synthetic DNA 132 (ix) FEATURE: (D) OTHER INFORMATION: has a portion complementary to 133 134 SEQ ID NO: 9 135 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 30 136 GGGTAAACGA ATGAACAAGA ATAAGAAATA 138 (2) INFORMATION FOR SEQ ID NO: 9: (i) SEQUENCE CHARACTERISTICS: 139 140 (A) LENGTH: 108 141 (B) TYPE: nucleic acid (C) STRANDEDNESS: single 142 143 (D) TOPOLOGY: linear C--> 144 (ii) MOLECULE TYPE: other nucleic acid 145 (A) DESCRIPTION: synthetic DNA (ix) FEATURE: 146 (D) OTHER INFORMATION: has a sequence of an alanyl tRNA 147 148 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9: TTGTTCATTC GTTTACCCGG GGCTATAGCT CAGCTGGGAG AGCGCCTGCT TCTAACGCAG 60 149 150 GAGGTCTGCG GTTCGATCCC GCGTAGCTCC ACCAGGAGGC GACTAGCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/046,722

DATE: 01/28/2002

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TIME: 14:05:55
                     PATENT APPLICATION: US/10/046,722
                     Input Set : A:\yanagawa sequence listing.txt
                     Output Set: N:\CRF3\01282002\J046722.raw
     152 (2) INFORMATION FOR SEQ ID NO: 10:
              (i) SEQUENCE CHARACTERISTICS:
     154
                    (A) LENGTH: 23
     155
                    (B) TYPE: nucleic acid
     156
                    (C) STRANDEDNESS: single
     157
                    (D) TOPOLOGY: linear
C--> 158
             (ii) MOLECULE TYPE: other nucleic acid
     159
                    (A) DESCRIPTION: synthetic DNA
     160
             (ix) FEATURE:
                    (D) OTHER INFORMATION: has a 3'-side sequence of an
     161
     162 alanyl tRNA
     163
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
                                                                                  23
     164
             GTGGAGCTAC GCGGGATCGA ACC
     166 (2) INFORMATION FOR SEQ ID NO: 11:
              (i) SEQUENCE CHARACTERISTICS:
                    (A) LENGTH: 25
     168
     169
                    (B) TYPE: nucleic acid
     170
                    (C) STRANDEDNESS: single
     171
                    (D) TOPOLOGY: linear
             (ii) MOLECULE TYPE: other nucleic acid
C--> 172
                    (A) DESCRIPTION: synthetic DNA
     173
     174
             (ix) FEATURE:
                    (D) OTHER INFORMATION: has no initiation codon
     175
     176
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
                                                                                  25
     177
             GCAGCCGGAT CCTTTCTGCT TGTGG
     179 (2) INFORMATION FOR SEQ ID NO: 12:
              (i) SEQUENCE CHARACTERISTICS:
     180
     181
                   (A) LENGTH: 21
     182
                   (B) TYPE: nucleic acid
     183
                   (C) STRANDEDNESS: single
     184
                   (D) TOPOLOGY: linear
C--> 185
             (ii) MOLECULE TYPE: other nucleic acid
     186
                    (A) DESCRIPTION: synthetic DNA
     187
             (ix) FEATURE:
     188
                   (D) OTHER INFORMATION: has a sequence partly
     189 complementary to SEQ ID NO: 17
     190
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
                                                                                  21
             CTTTAATGAC CTCCCCTCTC C
     191
     193 (2) INFORMATION FOR SEQ ID NO: 13:
              (i) SEQUENCE CHARACTERISTICS:
     194
     195
                   (A) LENGTH: 40
     196
                   (B) TYPE: nucleic acid
     197
                   (C) STRANDEDNESS: single
     198
                   (D) TOPOLOGY: linear
C--> 199
             (ii) MOLECULE TYPE: other nucleic acid
     200
                   (A) DESCRIPTION: synthetic DNA
     201
             (ix) FEATURE:
     202
                   (D) OTHER INFORMATION: has a sequence partly
     203 complementary to SEQ ID NO: 17
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RAW SEQUENCE LISTING

RAW SEQUENCE LISTING DATE: 01/28/2002 PATENT APPLICATION: US/10/046,722 TIME: 14:05:55

Input Set: A:\yanagawa sequence listing.txt
Output Set: N:\CRF3\01282002\J046722.raw

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

204

```
40
            CTTTAATAAT TTTTTTTTT TTTAATGACC TCCCCTCTCC
    205
    207 (2) INFORMATION FOR SEQ ID NO: 14:
             (i) SEQUENCE CHARACTERISTICS:
     208
     209
                  (A) LENGTH: 60
                  (B) TYPE: nucleic acid
     210
    211
                  (C) STRANDEDNESS: single
    212
                  (D) TOPOLOGY: linear
            (ii) MOLECULE TYPE: other nucleic acid
C--> 213
                  (A) DESCRIPTION: synthetic DNA
    214
     215
            (ix) FEATURE:
     216
                  (D) OTHER INFORMATION: has a sequence partly
    217 complementary to SEQ ID NO: 17
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
    218
            219
     221 (2) INFORMATION FOR SEQ ID NO: 15:
             (i) SEQUENCE CHARACTERISTICS:
    222
                  (A) LENGTH: 80
     223
     224
                  (B) TYPE: nucleic acid
    225
                  (C) STRANDEDNESS: single
                  (D) TOPOLOGY: linear
    226
            (ii) MOLECULE TYPE: other nucleic acid
C--> 227
                  (A) DESCRIPTION: synthetic DNA
    228
    229
            (ix) FEATURE:
                  (D) OTHER INFORMATION: has a sequence partly
    230
    231 complementary to SEQ ID NO: 17
    232
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
            233
            TTTAATGACC TCCCCTCTCC
    234
    236 (2) INFORMATION FOR SEQ ID NO: 16:
             (i) SEQUENCE CHARACTERISTICS:
    237
    238
                  (A) LENGTH: 25
    239
                  (B) TYPE: nucleic acid
    240
                  (C) STRANDEDNESS: single
    241
                  (D) TOPOLOGY: linear
            (ii) MOLECULE TYPE: other nucleic acid
C--> 242
    243
                  (A) DESCRIPTION: synthetic DNA
            (ix) FEATURE:
    244
C--> 245
                  (B) LOCATION: 22...25
                  (D) OTHER INFORMATION: RNA
    246
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
    247
            CTTACTGTCT TTTTTTTTT TGAGC
                                                                           25
    248
    250 (2) INFORMATION FOR SEQ ID NO: 17:
    251
             (i) SEQUENCE CHARACTERISTICS:
                  (A) LENGTH: 33
    252
    253
                  (B) TYPE: nucleic acid
    254
                  (C) STRANDEDNESS: single
    255
                  (D) TOPOLOGY: linear
            (ii) MOLECULE TYPE: other nucleic acid
C--> 256
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 VERIFICATION SUMMARY
 DATE: 01/28/2002

 PATENT APPLICATION: US/10/046,722
 TIME: 14:05:56

Input Set : A:\yanagawa sequence listing.txt
Output Set: N:\CRF3\01282002\J046722.raw

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L:21 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:34 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:47 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:60 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:74 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:88 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:102 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:116 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:130 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:144 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:158 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:172 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:185 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:199 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:213 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:227 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:242 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:245 M:220 C: Keyword misspelled or invalid format, [(B) LOCATION:]
L:256 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:270 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:284 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:298 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:312 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:328 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:342 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:356 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:369 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
L:383 M:220 C: Keyword misspelled or invalid format, [(ii) MOLECULE TYPE:]
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